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ABSTRACT

This document provides findings of a study that examined in detail the cost of producing reimbursable meals in the National School Lunch and Breakfast Programs (NSL and SBP) during school year 1992-93. The study examined the costs charged to SFAs (reported costs) and those costs incurred by the school district in support of SFA operations, but not charged to the SFA (unreported costs). Together, the reported and unreported costs comprised the full cost of meal production. Data were collected from a nationally representative sample of 94 School Food Authorities (SFAs). In each SFA, data were collected from a representative sample of schools and kitchens. The total sample included 540 schools. Findings indicate that on average, SFAs operated at the break-even level, with total revenues about equal to total reported costs. Revenues from reimbursable meals exceeded the cost of producing those meals. Reimbursable lunches generated a revenue surplus that was used to offset losses from reimbursable breakfasts. Revenues from reimbursable meals (including government subsidies and student payments) accounted for an average of 85 percent of total SFA revenues. Across all SFAs, unreported costs accounted for an average of 17 percent of full costs. Finally, unreported costs were primarily for labor, indirect costs, equipment depreciation, and utilities. Sixteen exhibits are included. (LMI)

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School Lunch and Breakfast Cost Study

Summary of Findings

October 1994

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School Lunch and Breakfast Cost Study

Summary of Findings

October 1994

Contract No. 53-3198-2-021

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Executive Summary

STUDY BACKGROUND

The School Lunch and Breakfast Cost Study was carried out by Abt Associates Inc. of Cambridge, Massachusetts, under contract to the Food and Nutrition service (FNS) of the United States Department of Agriculture (USDA). It provides a detailed examination of the cost of producing reimbursable meals in the National School Lunch and Breakfast Programs (NSLP and SBP) during School Year (SY) 1992-93. Information was collected information from a nationally-representative sample of 94 School Food Authorities (SFAs). In each SFA, data were collected in a representative sample of schools and kitchens. In total, data were collected in a sample of 540 schools.

The study examined the costs charged to SFAs (reported costs), as well as those costs incurred by the school district in support of SFA operations, but not charged to the SFA (unreported costs). Together, the reported costs and the unreported costs are the full cost of meal production.

NONPROFIT FOODSERVICE OPERATIONS

SFAs are required to be nonprofit and self-sufficient. Usually, SFAs operate at the break-even level, i.e., costs should equal revenues from all sources. Nonprofit status is determined by the financial status of the school food service ***as a whole*** rather than the financial status of each Federal program separately. SFAs are not required to maintain separate cost and revenue records for the NSLP, SBP and other nonprofit school food service activity. SFAs can use Federal lunch and non-severe need breakfast payments to support their overall nonprofit school food service. Federal funds from NSLP can be used to support SBP or non-program food service such as a la carte service.

Because SFAs are nonprofit, reported costs will generally equal revenues. Within this overall status though, SFAs may shift costs between breakfast and lunch, or reimbursable and non-reimbursable meals. If revenues from reimbursable meals exceed the cost of producing these meals, the SFA may use the funds to support a la carte meals. Similarly, if revenues from reimbursable meals are less than the costs, the SFA may use the a la carte revenues to support the cost of reimbursable meals.

Major findings related to SFA revenues and reported costs include:

- On average, SFAs operate at the break-even level, with total revenues about equal to total reported costs.

- Revenues from reimbursable meals exceed the cost of producing those meals. Reimbursable lunches generate a revenue surplus that is used to offset losses from reimbursable breakfasts.

- SFAs also subsidize non-program food service (e.g., a la carte) with surplus revenues from reimbursable lunches.

- Revenues from reimbursable meals (including government subsidies and student payments) accounted for an average of 85 percent of total SFA revenues.

REPORTED COSTS

From an SFA's perspective, reported costs ***are*** the costs of running the Child Nutrition programs. That is, reported costs are the costs SFAs are expected to cover from revenues derived from food service sales and government reimbursements. Major findings related to the reported cost of producing reimbursable meals include:

- The combined Federal subsidy for free lunches and breakfasts covers the cost of producing these meals. The combined median cost of producing NSLP and SBP meals ($2.68) was less than the combined Federal subsidy for free meals ($2.79).

- The reported cost of producing a reimbursable lunch was less than the Federal subsidy for a free lunch. The SFAs' median reported cost of producing a reimbursable lunch was $1.63, compared with a Federal subsidy of $1.84 for a free lunch. In 75% of the SFAs, the reported cost of producing reimbursable lunches was less than the Federal subsidy.

- The reported cost of producing a reimbursable breakfast exceeded the Federal subsidy for a free breakfast. The SFAs' median reported cost of producing a reimbursable breakfast was $1.05, compared with a Federal subsidy of $0.95 for a free breakfast ($1.12 for a "severe need" breakfast). In two-thirds of the SFAs, reported costs exceeded the regular reimbursement rate for free breakfasts.

Federal meal subsidies are not intended to cover all costs for all SFAs. It is expected that some SFAs will have reported costs above the subsidy while others will have costs below the subsidy. However, it is intended that, on average, across all SFAs Federal subsidies will cover the costs of producing reimbursable meals.

UNREPORTED COSTS

Most school districts incur some costs in support of the food service operations that are not charged to the SFA budget. In some cases, the school districts chose to bear these costs as a way to subsidize the SFA, while in other cases, the districts carried the costs because the SFA had insufficient funds to cover all expected costs. Major findings related to the unreported costs and the full cost of producing reimbursable meals include:

- Across all SFAs, unreported costs accounted for an average of 17 percent of full costs.

- For the average SFA, the median full cost of producing a reimbursable lunch and breakfast was $1.88 and $1.38, respectively.

- Unreported costs are primarily labor, indirect costs, equipment depreciation, and utilities.

- Administrative labor costs accounted for 13 percent of the average SFA's full cost (compared to eight percent of the average SFA's reprted cost).

Chapter One

Introduction

The National School Lunch Program (NSLP) and the School Breakfast Program (SBP) are two of the "Child Nutrition Programs" administered by USDA's Food and Nutrition Service (FNS). The NSLP and SBP provide Federal subsidies for school lunches and breakfasts served to children at all income levels. Eligible institutions include public schools, private non-profit schools, and public or licensed residential child care institutions. Almost all (99%) public schools and 83 percent of all public and private schools participate in the NSLP. The SBP is available to about one half of all school children.

Combined Federal support for the NSLP and SBP totaled $5.5 billion in Fiscal Year 1992. This support is provided in the form of cash subsidies and donated commodities. School districts receive a cash subsidy for every school lunch and breakfast served, regardless of the income of the child's family. Additional cash subsidies are provided for children qualifying for free or reduced-price meals. Students eligible for free meals are those from families with incomes below 130 percent of poverty. Reduced-price meals may be served to children from families whose incomes fall between 130 and 185 percent of poverty. Exhibit 1 presents the Federal subsidies for the NSLP and SBP in effect for School Year 1992-93. The Federal subsidy for NSLP lunches includes cash reimbursements plus entitlement commodity assistance of $0.14 per lunch.

Exhibit 1

Federal Subsidies for the NSLP and SBP, School Year 1992-93

Eligibility Category	NSLP[1]	SBP
Paid	$0.3025	$0.1875
Reduced-price	1.4350	0.6450
Free	1.8350	0.9450

[1]Includes $0.14 in entitlement commodities.

SFAs in which at least 60 percent of enrolled children qualify for free or reduced-price meals receive an additional reimbursement of $0.02 per lunch. Individual schools are eligible for "severe need" funding if at least 40 percent

of their lunches are claimed at the free or reduced-price rates and if preparation costs exceed the regular breakfast reimbursement. Severe need schools receive an additional reimbursement of $0.1775 per breakfast. In addition to these cash subsidies, schools may receive entitlement commodities for use in school meals. Entitlement assistance was $0.14 per lunch for School Year 1992-93.

Federal meal subsidies are not intended to cover all costs for all SFAs. It is expected that some SFAs will have reported costs above the subsidy while others will have costs below the subsidy. However, it is intended that, on average, across all SFAs Federal subsidies will cover the costs of producing reimbursable meals.

SFAs are required to be nonprofit and self-sufficient. Usually SFAs operate at the break-even level, i.e., costs should equal revenues from all sources. Nonprofit status is determined by the financial status of the school food service **as a whole** rather than the financial status of each Federal program separately. SFAs are not required to maintain separate cost and revenue records for the NSLP, SBP and other nonprofit school food service activity. SFAs can use Federal lunch and non-severe need breakfast payments to support their overall nonprofit school food service. Federal funds from NSLP can be used to support SBP or non-program food service such as a la carte.

STUDY OBJECTIVES

The School Lunch and Breakfast Cost Study, conducted for FNS, was designed to "...determine the cost to produce school lunches and breakfasts, including indirect and local administrative costs" (P.L. 101-624). Specifically, the study was intended to meet the following objectives:

- determine the national average reported and full cost of producing reimbursable National School Lunch Program (NSLP) and School Breakfast Program (SBP) meals during School Year (SY) 1992-93;

- determine the value of local administrative costs used to produce reimbursable meals;

- determine the composition of indirect costs, the extent to which they are charged to School Food Authority (SFA)[1] accounts, and the basis for these charges; and

- determine the composition of SFA revenues, including federal reimbursements, cafeteria sales (student payments for NSLP and

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[1]A School Food Authority is "...the governing body which is responsible for the administration of one or more schools and has the legal authority to operate the Program therein or be otherwise approved by FNS to operate the program." (7CFR210.2).

SBP reduced- and full-price meals, a la carte, and adult meals, etc.), and State and local cash assistance.

DEFINING MEAL COSTS

In existing cost reporting systems, the definition and measurement of meal production costs depends on the vantage point adopted and on how the information is to be used. At the local level, cost accounting systems are designed to inform local managerial decisions. Most often, school districts expect their food service authorities to operate at the break-even level, i.e., costs should equal revenues from all sources. The cost elements included in the SFA's cost accounting system are, for the most part, limited to those costs that the food service authority is expected to cover from revenues generated from food service sales and government reimbursements. However, these costs may not reflect the full cost of meal production in the school district. For example, the SFA costs may exclude the cost of school district resources used to support SFA operations.

Conceptually, the full cost of meal production should include the current cost of **all** resources used in meal production, including those charged to the SFA budget and those charged to other budgets or donated to the SFA. These total costs include:

- **Direct Meal Production Costs.** Direct meal production costs are those directly traceable to meal production and service. They include such items as food cost, SFA food service labor costs, and other identifiable meal production costs (e.g., supplies).

- **Non-meal Production Costs.** These costs, which can be incurred at both the SFA and school district level, are not directly traceable to the production of meals in schools. At the SFA level, these costs include labor for food service administration and other SFA support activities, the cost of the facilities occupied by the SFA, storage and transportation of foods, and transportation of meals within the district. At the school district level, examples include the time spent by business managers who are often are responsible for SFA as well as school district purchases; school principals, custodians and secretaries who provide administrative services that facilitate the operation of school cafeterias; and cafeteria and kitchen utility costs that are often included in school district utility bills. Other examples of school district costs include: school facilities used to store and transport inventories of food (and other SFA supplies); district facilities used to prepare and serve meals; and vehicles used to transport meals prepared at central or base kitchens to satellite and receiving kitchens. Some or all of these costs may be directly charged to the SFA and appear as line-items on the SFA financial statement or they may be included as part of an indirect cost rate; or they may be absorbed by the school district and not charged in any way to the SFA.

- **Costs of Other Resources.** Examples of other resources (which may be meal production or non-meal production costs) that do not appear in either SFA or school district budgets are: volunteers and student aides who routinely assist in the cafeteria; and depreciation of capital equipment.

OVERVIEW OF THE MEAL COST METHODOLOGY

The primary objective of the School Lunch and Breakfast Cost Study was to determine the cost of producing school lunches and breakfasts, including indirect and local administrative costs. In contrast to the methods used by SFAs and prior research studies, the methodology for this study relied on the direct measurement of costs attributable to the various SFA activities rather than the use of ad hoc allocation rules. Exhibit 2 presents an overview of the study approach.

The methodology consists of four elements:

1) measuring the full cost (reported costs plus non-reported costs) of SFA operations;

2) distributing the reported and full cost of SFA operations to the production of lunches, the production of breakfasts, and non-meal production activities;

3) distributing a share of the cost of non-meal production activities to the production of lunches and breakfasts to obtain the reported and full cost of producing these meals; and

4) distributing the reported and full cost of meal production to the production of reimbursable and non-reimbursable meals.

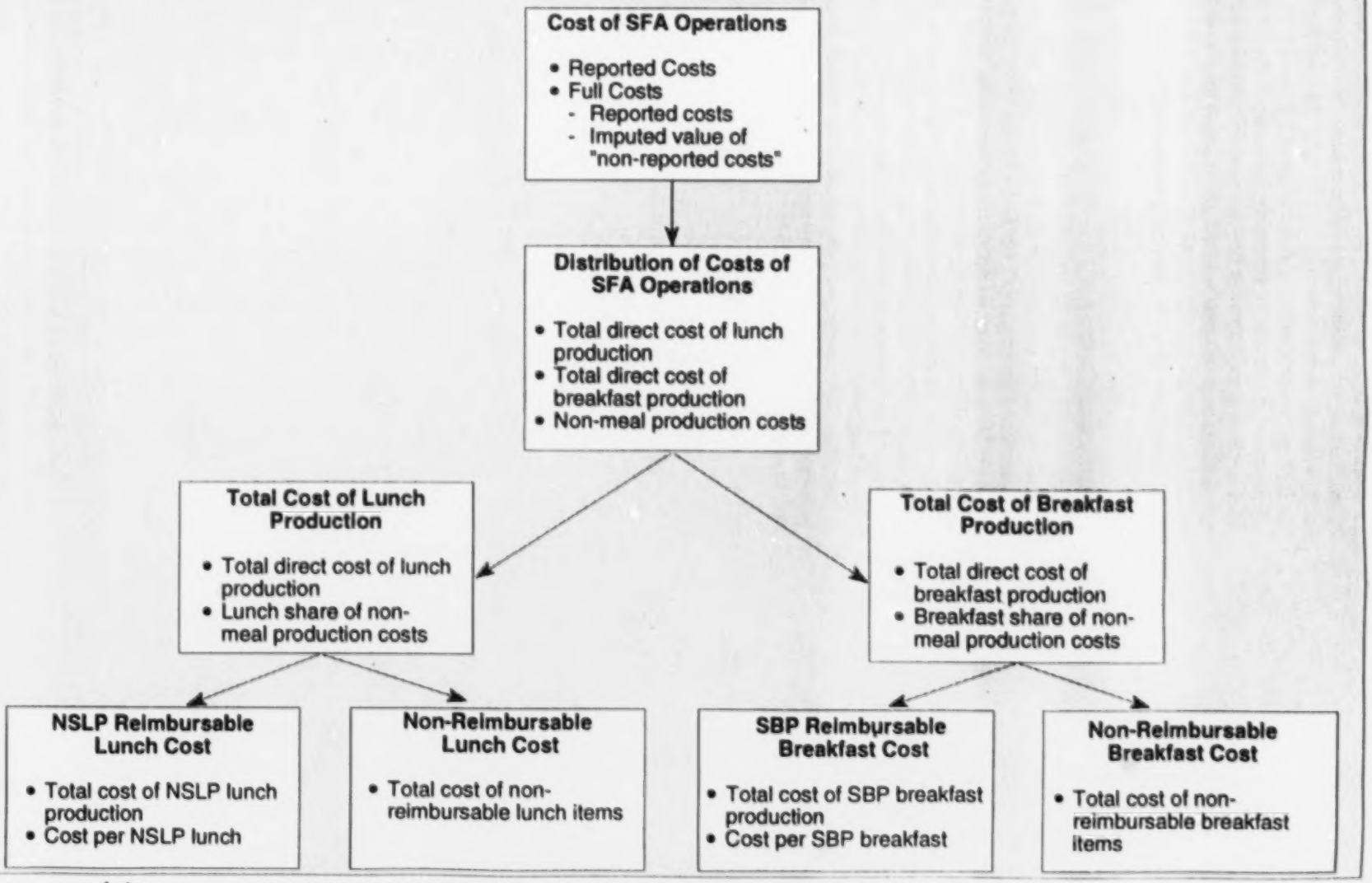
To complete these four processes required a review of SFA financial statements, meal production records, recipes, invoices, and other documentation. SFA and school district officials were interviewed to provide data to impute the value of school district costs that are not charged to the SFA budget. Data needed to allocate labor costs among SFA activities were obtained through a time study conducted with food service staff in a sample of schools. Finally, a sample of meals taken by students was observed to obtain data on the distribution of menu items sold in reimbursable and non-reimbursable meals.

SAMPLE SELECTION

The School Lunch and Breakfast Cost Study involved the collection of data from a national sample of school districts that participate in the NSLP. To select such a sample, staff first constructed a nationally-representative listing of 985 public school districts in the continental United States. Simple descriptive information was then obtained from each of these school districts

Exhibit 2

Overview of Meal Cost Methodology Framework


Cost of SFA Operations
• Reported Costs
• Full Costs
- Reported costs
- Imputed value of "non-reported costs"
Distribution of Costs of SFA Operations
• Total direct cost of lunch production
• Total direct cost of breakfast production
• Non-meal production costs
Total Cost of Lunch Production
• Total direct cost of lunch production
• Lunch share of non-meal production costs
Total Cost of Breakfast Production
• Total direct cost of breakfast production
• Breakfast share of non-meal production costs
NSLP Reimbursable Lunch Cost
• Total cost of NSLP lunch production
• Cost per NSLP lunch
Non-Reimbursable Lunch Cost
• Total cost of non-reimbursable lunch items
SBP Reimbursable Breakfast Cost
• Total cost of SBP breakfast production
• Cost per SBP breakfast
Non-Reimbursable Breakfast Cost
• Total cost of non-reimbursable breakfast items

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about their food service programs. This information included: 1) participation in the SBP; 2) type of meal production system; and 3) total reimbursable lunches and breakfasts served in SY 1991-92. This descriptive information on the food service program was then used to select a stratified sample of 98 public school districts from among the telephone survey respondents. Detailed meal production cost information was collected on-site for this sample of school districts to calculate national estimates of the mean cost of producing NSLP and SBP meals. Of the 98 SFAs that were initially included in the study sample, a total of 94 were used in the analysis.[2]

DATA COLLECTION

The data collection activities for the School Lunch and Breakfast Cost Study were conducted in Spring/Fall 1993. In Spring 1993, study staff visited each of the 98 SFAs in the study sample to obtain the information needed to allocate the SFAs' ***reported costs*** between lunch and breakfast production and between reimbursable and non-reimbursable meals. A second on-site visit was conducted in Fall 1993 and focused on the unreported costs attributable to school food service operations. During this site visit, study staff interviewed SFA and school district staff to identify the resources used by, but not charged to, the SFA. Information was also obtained to identify the amount of these unreported costs. These data were used to estimate the ***full cost*** of producing reimbursable lunches and breakfasts.

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[2]Data collection problems in three SFAs precluded the use of the data from these SFAs in the analysis. In addition, one SFA dropped out of the study during the data collection.

Chapter Two

Estimates of Reported Costs

This chapter presents an analysis of SFAs' **reported** costs for SY 1992-93. The research questions addressed in this chapter include:

- What is the national average reported cost of producing a reimbursable lunch?
- What is the national average reported cost of producing a reimbursable breakfast?
- What is the composition of reported reimbursable meal costs, i.e., what proportion of reported reimbursable meal costs are attributable to food costs? to labor costs? to other costs?
- What proportion of reported costs are attributable to food service administration?

The analysis focuses on the costs of producing reimbursable meals and includes only those costs that were charged to SFA budgets. Reported costs reflect what SFA directors envision as their operating costs and what NSLP and SBP subsidies are expected to cover. As noted earlier, many SFAs use school district resources for which they are not charged. The magnitude and composition of these unreported costs is examined in Chapter Three.

REPORTED COSTS OF PRODUCING REIMBURSABLE MEALS

This section presents national estimates of reported costs for reimbursable meals. Costs are first examined using the SFA as the basis of analysis. This analysis gives equal weight to each SFA, regardless of size. Estimated costs represent the average cost for a "typical" SFA.

Costs are also examined using the meal as the basis of analysis. This analysis gives equal weight to each reimbursable meal, and since most reimbursable meals are produced in large SFAs, the results are dominated by the costs incurred in large SFAs. Estimates represent the cost of an average reimbursable meal.

Cost per Reimbursable Lunch

In SY 1992-93 reported costs per reimbursable lunch ranged from $0.93 to $2.50, with a median cost of $1.63 and a mean cost of $1.64 (Exhibit 3). When the basis of analysis is the NSLP meal, the median reported cost of producing a reimbursable lunch was $1.66 and the mean cost was $1.69. The higher average cost when the NSLP meal is the basis of analysis reflects the

Exhibit 3

Average Reported Cost of Producing Reimbursable Meals

Unit of Analysis	Lunch		Breakfast	
	Mean	Median	Mean	Median
SFA	$1.64	$1.63	$1.27	$1.05
Meal	1.69	1.66	$1.11	1.05

higher reported costs in large SFAs. Because only 16 percent of SFAs have enrollments over 5,000, these large SFAs have a relatively small influence on the average reported cost when the SFA is the basis of analysis. However, because nearly 60 percent of reimbursable lunches served in SY 1992-93 were served in these large SFAs, these large SFAs have a greater affect on the average reported cost when the basis of analysis is the NSLP meal.

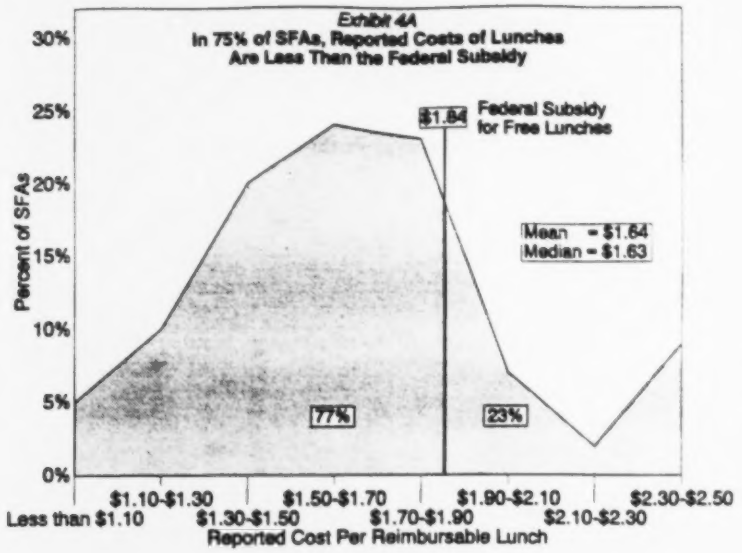
The Federal subsidy for free lunches was about $1.84 ($1.70 in cash reimbursements plus $0.14 in entitlement commodities). This was considerably more than the median reported cost of producing a lunch in the average SFA ($1.63). The median reported cost of producing a reimbursable lunch was less than the total subsidy for a free lunch in 77 percent of SFAs (Exhibit 4A). Similarly, 77 percent of all reimbursable lunches served in SY 1992-93 were produced at a reported cost that was less than the total subsidy for a free lunch (Exhibit 4B).

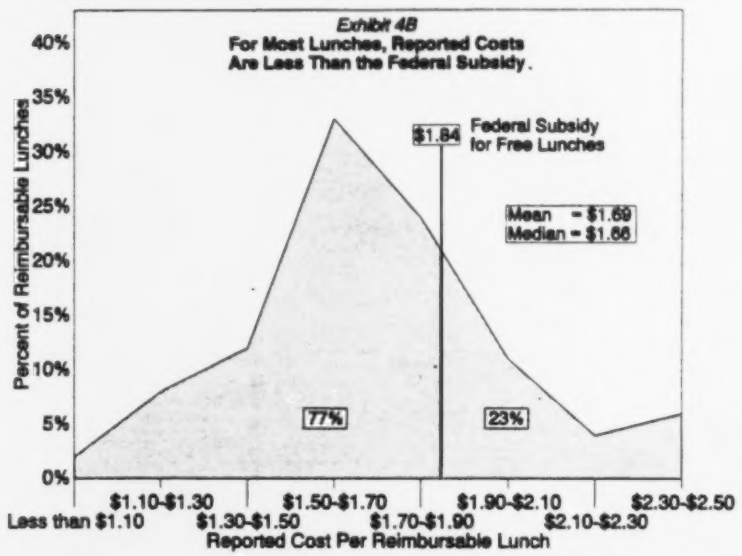
Cost per Reimbursable Breakfast

In SY 1992-93, the reported costs per reimbursable breakfast ranged from $0.58 to $2.93, with a median cost of $1.05 and a mean cost of $1.27 (Exhibit 3). When the basis of analysis is the SBP meal, the median reported cost per reimbursable breakfast was $1.05 and the mean cost was $1.11.[1] This may reflect the apparent economies of scale in breakfast production. As the number of breakfasts served in a school increases, the reported labor per meal costs may be expected to decrease because fixed costs are being spread over a larger number of meals. Schools serving large numbers of reimbursable breakfasts tend to have lower reported costs per meal.

The regular reimbursement rate for free breakfasts in SY 1992-93 was $0.95, with a "severe need" rate of $1.12. In contrast to lunch costs, where the reported cost of producing reimbursable lunches tended to be less than the Federal subsidy for free lunches, in most SFAs the reported cost of producing reimbursable breakfasts exceeded the reimbursement rates. In 66 percent of

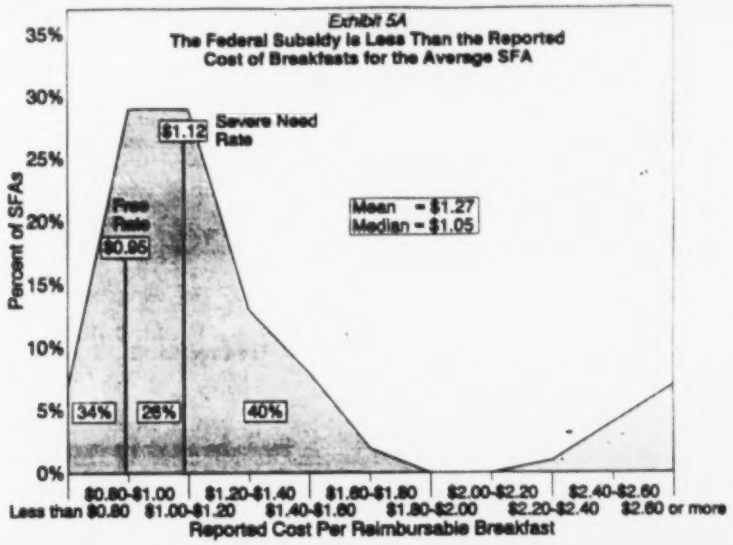
[1]Because of the relatively small sample size, atypical SFAs exert more influence on the mean than the median. For this reason, the median is a better indicator of average costs than the mean.

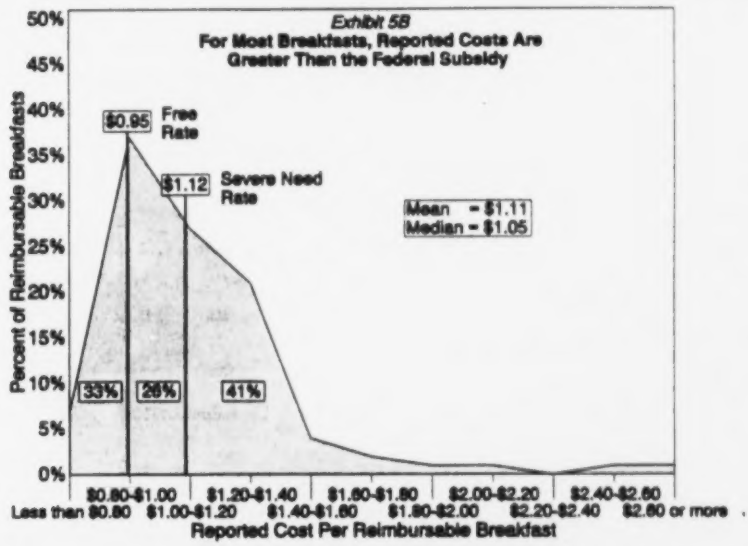




SFAs, reported costs exceeded the regular reimbursement rate for free breakfasts, and in 40 percent of SFAs, reported costs exceeded the higher severe need reimbursement rate (Exhibit 5A). Even when the unit of analysis is the SBP meal (Exhibit 5B), 67 percent of all breakfasts served in SY 1992-93 were produced at a reported cost that exceeded the regular reimbursement

rate for a free breakfast (41 percent were produced at a reported cost that exceeded the higher severe need rate).[2]





[2]Program administrative data show that in FY 1993, 65 percent of the free breakfasts were reimbursed at the severe need rate and about 56 percent of all breakfasts were severe need.

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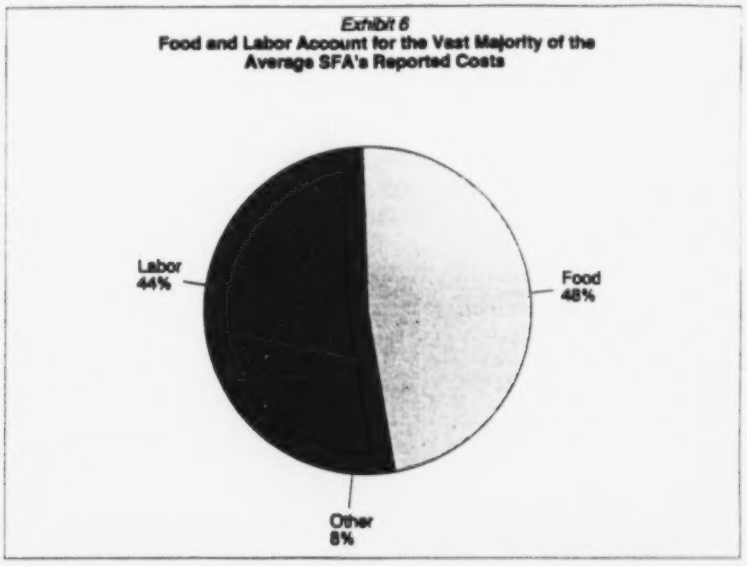
COMPOSITION OF REPORTED COSTS

Food and labor costs accounted for the vast majority (92 percent) of the average SFA's total reported cost of food service operations (Exhibit 6). Food costs (including the assigned value of donated commodities) accounted for just under one-half (48 percent) of reported costs, while labor costs accounted for 44 percent of reported costs. All other costs, including supplies, contract services, capital expenditures, indirect charges by the school district, represented 8 percent of the average SFA's reported costs.

Exhibit 6
Food and Labor Account for the Vast Majority of the Average SFA's Reported Costs



Proportion of Food Costs Attributable to Donated Commodities

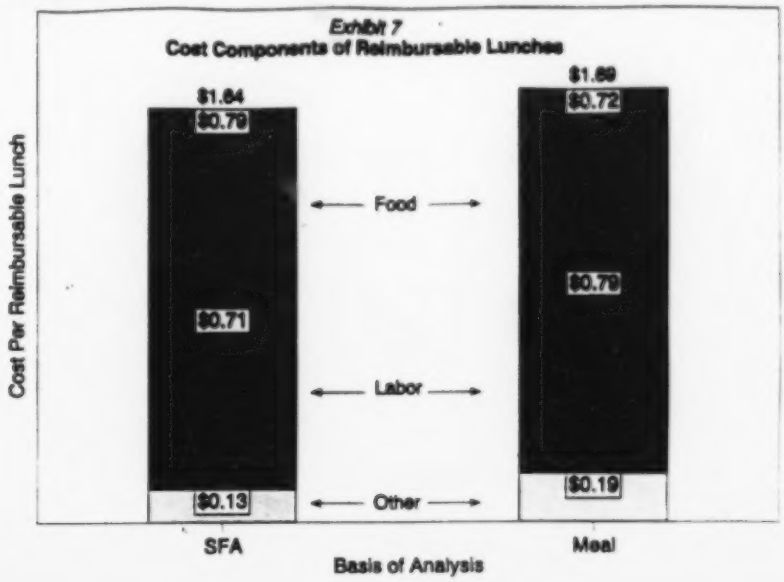
The value of USDA donated commodities accounted for a significant proportion of the total reported cost of food used by SFAs. In SY 1992-93 commodities (including bonus commodities) accounted for 17 percent of the total cost of food used by the average SFA; in 70 percent of all SFAs donated commodities accounted for ***at least*** 15 percent of total food costs. It should be noted that SFAs may use donated commodities for non-reimbursable as well as reimbursable meals.

Cost Components of Reimbursable Meals

Reimbursable Lunch Costs. For the average SFA, reported food costs per reimbursable lunch were $0.79 in SY 1992-93, with mean reported labor costs of $0.71, and other costs averaging $0.13 (Exhibit 7). There was little variation among SFAs in food costs per reimbursable lunch--in almost half of all SFAs (45 percent) food costs per reimbursable lunch were between $0.70 and $0.90. Similarly, there was relatively little variation among SFAs in reported labor costs per reimbursable lunch, with 43 percent of SFAs reporting labor costs per reimbursable lunch between $0.60 and $0.80.

Mean food costs per reimbursable lunch are lower using the meal as the basis of analysis ($0.72 vs. $0.79), perhaps reflecting the greater buying power of

Exhibit 7
Cost Components of Reimbursable Lunches



the large SFAs that serve large numbers of meals. However, it is interesting to note that mean labor costs per reimbursable lunch are higher using the meal as the basis of analysis. As shown below, this may reflect higher administrative labor costs incurred by larger SFAs.

Reimbursable Breakfast Costs. For the average SFA, reported food costs per reimbursable breakfast were $0.56 in SY 1992-93, with mean reported labor costs of $0.62, and other costs averaging $0.10. Labor costs per reimbursable breakfast are considerably more variable than food costs.

The effects of potential economies of scale in breakfast production may be seen in the mean labor cost per meal. The mean labor cost per breakfast is considerably lower when the reimbursable breakfast rather than SFA is used as the basis of analysis ($0.51 vs. $0.62), reflecting the lower breakfast labor costs per meal in SFAs serving large numbers of reimbursable breakfasts.

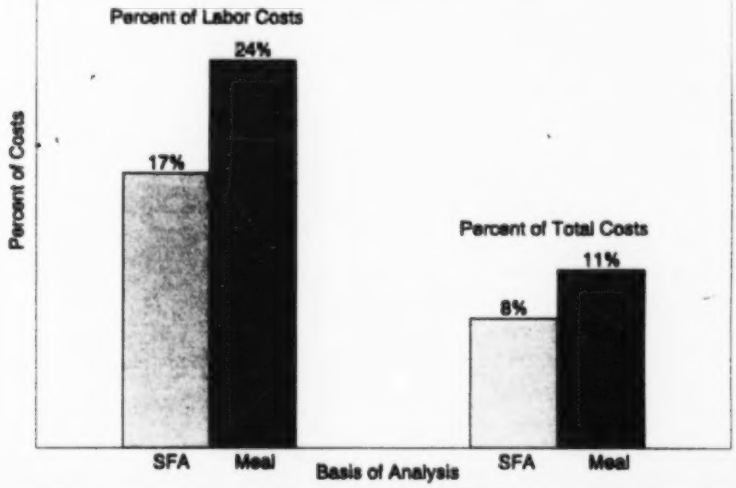
Administrative Costs

Food service administrative costs include the cost of performing administrative activities in support of food service operations (e.g., budgeting, menu planning, food purchasing, and application processing). These administrative tasks may performed by central food service staff, school-based food service staff (e.g., kitchen managers), central school district personnel, and school administrators (e.g., principals). Reported administrative costs include only those costs that are charged to the food service budget. They include all, or part, of central and school-based food service labor costs. It also includes school district

personnel and school administrators that provide support to food service only if food service is directly charged for these services.[3]

This study has broadly defined food service administration to include regular administrative activities such as planning, budgeting and management for the food service program, and other non-production activities such as maintenance of food service equipment. For the average SFA, administrative labor accounted for 17 percent of total reported labor costs (Exhibit 8). However, administrative labor accounts for a relatively small proportion of total reported costs. For the average SFA, reported administrative labor costs accounted for only 8 percent of total reported costs in SY 1992-93. In nine out of ten SFAs, administrative labor accounted for less than 15 percent of total reported costs.

Exhibit 8
Administrative Labor is a Large Percent of Labor Costs But a Small Percent of Total Reported Costs



Administrative labor accounts for a larger percentage of reported costs when the basis of analysis is the NSLP lunch. This reflects the fact that administrative costs were relatively higher in large school districts (enrollment ≥5,000) than in small districts (enrollment ≤1,000).

[3]Only four percent of school districts charge food service directly for support services provided by school district personnel. These costs may be charged to SFA budgets as part of indirect costs. In such cases they would not be included in administrative costs.

Chapter Three

SFA Revenues

SFAs receive revenues from a variety of sources. Some of these revenues are related to the sale of reimbursable meals (Federal reimbursements, State and local reimbursements, and student payments for reduced-price and full-price meals), while other revenues are not. This chapter presents an analysis of SFAs' revenues for SY 1992-93. The research questions addressed in this chapter include the following:

- What is the composition of SFA revenues? What proportion of SFA revenues come from various sources, including Federal reimbursements, State and local reimbursements, income from the sale of reimbursable meals, income from a la carte sales, and income from sales to adults?

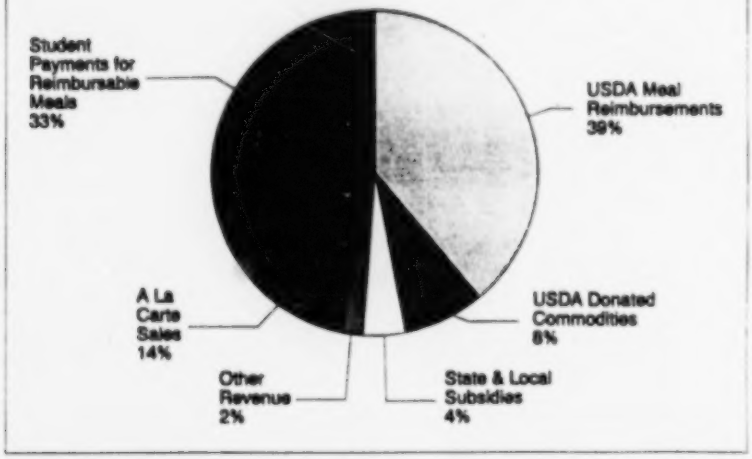
- What is the difference between SFA reported costs and SFA revenues? Are SFAs able to operate at the break-even level?

COMPOSITION OF REVENUES

The largest source of revenues, accounting for 47 percent of the average SFA's revenues was USDA subsidies, including meal reimbursements (39%) and the assigned value of USDA donated commodities (8%). Student payments for reimbursable meals (i.e., payments for reduced-price and full-price meals) accounted for another 33 percent of total revenues. State and local meal subsidies accounted for four percent of total revenues. Taken together, these three sources, which represent all revenues related to the sale of reimbursable meals, accounted for more than four-fifths of total SFA revenues (Exhibit 9).[1] A la carte sales (including adult meals and other non-reimbursable meals) represented 14 percent of the average SFA's total revenues. Other cash revenues (including such sources as interest on deposits, sale of equipment, and sales tax receipts) accounted for an average of two percent of total SFA revenues.

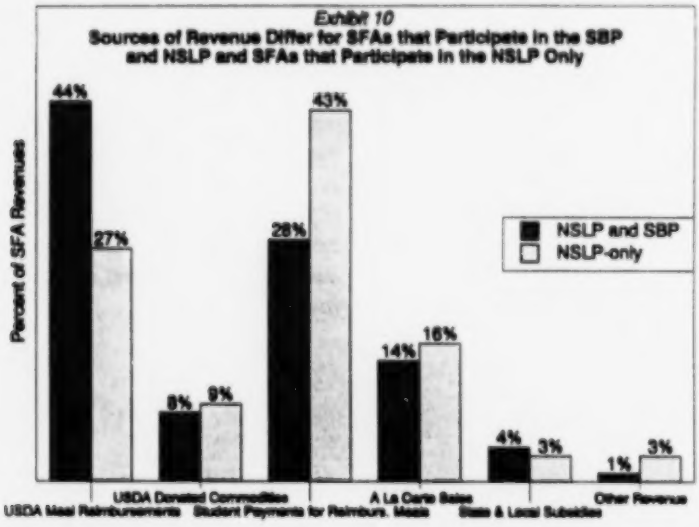
[1]Fifteen SFAs in the study sample did not separately report student payments for reimbursable meals from a la carte sales. These figures were imputed from information provided for all other revenue sources combined that was available for the full sample of 94 SFAs and information available for the 79 SFAs that reported student payments for reimbursable meals and a la carte sales separately.

Exhibit 9
Student Payments and USDA Subsidies Make Up the Majority of Total SFA Revenues


Student Payments for Reimbursable Meals 33%
USDA Meal Reimbursements 39%
A La Carte Sales 14%
USDA Donated Commodities 8%
Other Revenue 2%
State & Local Subsidies 4%

Participation in the SBP has a pronounced effect on the composition of SFA revenues. SFAs that participate in the SBP derive more of the revenue from USDA subsidies and less from student meal payments than NSLP-only SFAs (Exhibit 10).

Exhibit 10
Sources of Revenue Differ for SFAs that Participate in the SBP and NSLP and SFAs that Participate in the NSLP Only



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USDA Subsidies

USDA subsidies represented 47 percent of total SFA revenues in SY 1992-93. Most of the USDA subsidies consist of cash subsidies for reimbursable meals. These cash subsidies accounted for an average of 39 percent of total SFA revenues compared to an average of 8 percent for donated commodities.

SFAs that participate in the SBP derive more of their revenue from USDA subsidies than SFAs that only participate in the NSLP. On average, SFAs participating in the SBP derive 52 percent of their revenue from USDA subsidies compared to only 36 percent for SFAs that only participate in the NSLP. SFAs that participate in the SBP derived considerably more of their total revenue from USDA cash subsidies (44%) than did SFAs that only participate in the NSLP (27%). This reflects the additional cash subsidies derived from the breakfast program. It might also reflect the fact that free and reduced-price meals have substantially higher reimbursement rates than full-price meals (see Chapter One). SFAs that participate in the SBP tend to have higher concentrations of low-income children than SFAs that only participate in the NSLP.[2] There was no meaningful difference in the proportion of total revenues derived from donated commodities (8-9%) between SFAs that participate in the SBP and NSLP-only SFAs. This probably reflects the fact that commodity entitlements are tied to participation in the lunch program.

Student Payments for Reimbursable Meals

Student payments for reduced-price and full-price meals were the second largest source of SFA revenues, accounting for an average of 33 percent of total SFA revenues. SFAs that participate in the SBP on average derived a smaller percentage of their total revenues from student payments for reimbursable meals (28%) than NSLP-only SFAs (43%). This may reflect the higher concentration of low-income children in SFAs that participate in the SBP. Students paying the full price for reimbursable meals pay higher prices for these meals than students getting these meals at a reduced price.

COMPARISON OF REVENUES AND REPORTED COSTS

On average, SFAs are operating at the break-even level, with total revenues about equal to total reported costs (Exhibit 11). However, for the average SFA, revenues from reimbursable meals exceeded the reported cost of producing those meals. The mean revenue:cost ratio for reimbursable meals was 113 percent in SY 1992-93.[3] As noted in Chapter Two, the average

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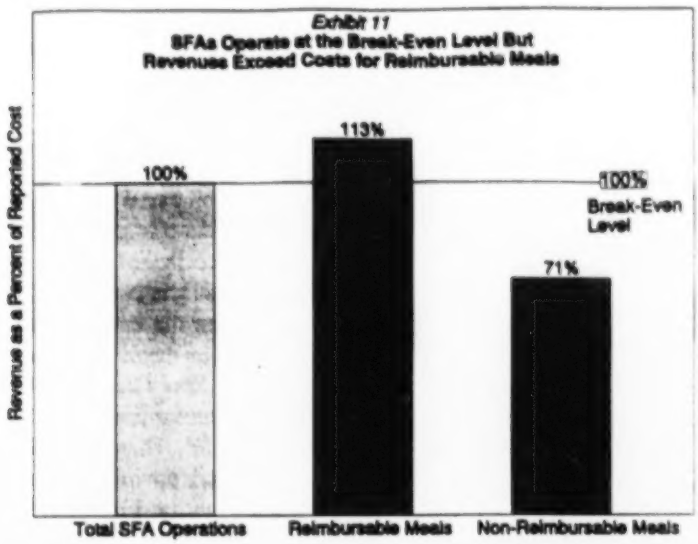
[2]Data from FNS' **Child Nutrition Program Operations Study** indicate that SFAs that participate in the SBP have a much higher proportion of children approved for free and reduced-price meals than SFAs that only participate in the NSLP. In SY 1989-90, 38 percent of SFAs that participated in the SBP were classified as "high poverty" SFAs (i.e., had at least 60 percent of their enrollment approved for free or reduced-price meals) compared to only 6 percent of SFAs that did not participate in the SBP.

[3]This analysis includes only those SFAs that separately report student payments for reimbursable meals from a la carte sales.

Exhibit 11
SFAs Operate at the Break-Even Level But Revenues Exceed Costs for Reimbursable Meals



reported cost of producing a reimbursable lunch was less than the Federal subsidy for a free lunch, while the average reported cost of producing a reimbursable breakfast exceeded the Federal subsidy for a free breakfast. Because total revenues derived from reimbursable meals exceed the cost of producing those meals, it appears that reimbursable lunches generate a surplus that can be used to offset losses generated from reimbursable breakfasts.[4]

Although reimbursable meals generate a small surplus, on average, revenues from a la carte sales fall short of the reported cost of non-reimbursable meal costs. The mean revenue:cost ratio for non-reimbursable meals was 71 percent in SY 1992-93. Since, overall SFAs are operating at the break-even level, it appears that the surplus generated from reimbursable lunches not only offsets losses from reimbursable breakfasts, but also offsets losses from non-reimbursable meals.

[4]Since most SFAs serve substantially more reimbursable lunches than reimbursable breakfasts, a small surplus on each reimbursable lunch can offset a much larger loss on each reimbursable breakfast.

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Chapter Four

Estimates of Full Costs

As discussed in Chapter One, SFAs' reported costs include only those costs that SFAs are expected to cover from revenues generated from food service sales and government reimbursements. However, reported costs often do not reflect the cost of all resources attributable to food service operations. Nearly all school districts incur some costs in support of food service operations that are not charged to the SFA budget.

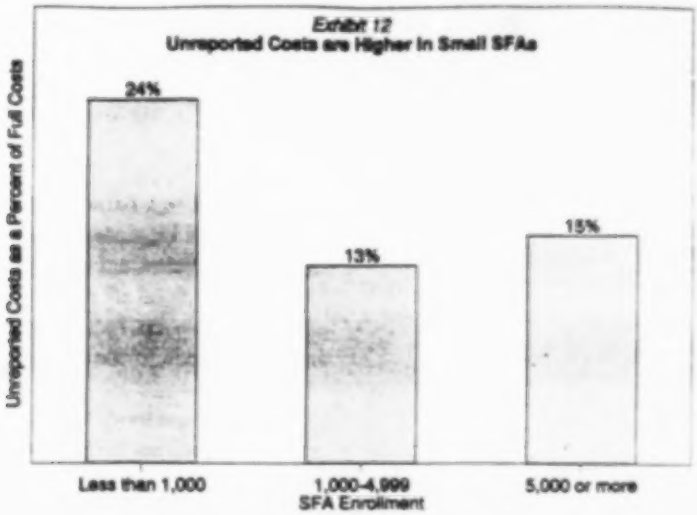
This chapter presents an analysis of SFAs' **full costs** for SY 1992-93. The research questions addressed in this chapter, similar to those addressed in Chapter Three, include:

- What is the magnitude and composition of unreported costs?
- What is the national average **full cost** of producing a reimbursable lunch?
- What is the national average **full cost** of producing a reimbursable breakfast?
- What is the composition of **full costs** for reimbursable meals, i.e., what proportion is attributable to food costs? to labor costs? to other costs?
- What proportion of **full costs** are attributable to food service administration?

MAGNITUDE AND COMPOSITION OF UNREPORTED COSTS

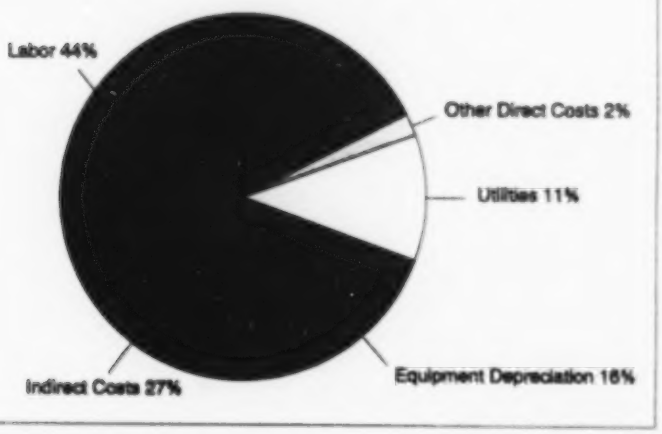
Across all SFAs, unreported costs accounted for an average of 19 percent of full costs in SY 1992-93. In more than nine out of ten SFAs (94%), unreported costs accounted for less than 30 percent of full costs. Unreported costs were relatively higher in small SFAs (Exhibit 12). Among small SFAs unreported costs accounted for an average of 24 percent of full costs, compared to an average of approximately 14 percent in medium and large SFAs. As discussed below, small SFAs are more likely to rely on school district personnel for administrative support of food service operations. Since SFAs are rarely charged (either directly or indirectly) for such support from school district personnel, small SFAs are likely to have higher unreported labor costs than medium and large SFAs.

Exhibit 12
Unreported Costs are Higher in Small SFAs



Unreported costs are labor (which includes salaries and fringe benefits), indirect costs, equipment depreciation, and utilities (Exhibit 13). Unreported labor represented 44 percent of total unreported costs, unreported indirect costs represented 27 percent, equipment depreciation represented 16 percent, and utilities represented 11 percent. Other unreported costs together represented 2 percent of total unreported costs.

Exhibit 13
Unreported Labor Costs Are Almost Half of All Unreported Costs



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Unreported Labor Costs

Unreported labor costs include personnel that are not charged directly or indirectly to the food service budget[1] and include both school district central staff and school-based personnel (e.g., principals, secretaries) that spend some portion of their time working on food service activities. In some cases, SFAs are charged directly for the time that school district personnel devote to food service activities; in other cases, the cost of this labor is included in the school district's indirect cost rate; while in other cases, these costs are absorbed by the school district (i.e., not charged to the SFA budget).

There is considerable variation among SFAs in the amount of total labor costs that are not charged to the SFA budget. In three out of four SFAs (74%), unreported labor represented less than 20 percent of total labor costs. However, for five percent of SFAs, unreported labor accounted for at least 40 percent of total labor costs. SFAs with relatively high unreported labor costs tend to be small SFAs in which food service is heavily subsidized by the school district. In general, small SFAs rely more heavily on the school district for support services (for which they are not charged) than larger SFAs.

As discussed above, unreported labor consists of personnel at the school district level and personnel at the individual school level (school administrative labor). School-based personnel account for a much smaller proportion of unreported labor costs in small SFAs than in medium-size SFAs and large SFAs (Exhibit 14). Small SFAs are more likely to rely on central school district personnel for support services. In addition, activities such as processing applications and income verification are more likely to be carried out centrally (by SFA personnel) in small SFAs than in larger SFAs, where those same activities are more likely to be carried out by (non-SFA) school personnel.

Unreported Indirect Costs

State Education Agencies review school districts' cost information and provide each school district with an approved indirect cost rate. However, school districts are not obligated to apply the approved indirect cost rate to food service (or other grant programs). Some school districts have indirect costs that are attributable to food service, but do not report these costs on the food service budget. In other districts food service reports some, but not all, of the indirect costs.

In nine out of ten SFAs where the school district has an indirect cost rate that could be applied to food service, the SFA does not report any indirect costs (Exhibit 15). Such unreported indirect costs represent school district resources used by food service and account for 27 percent of total unreported costs for the average SFA.

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[1]In cases where a school district does ***not*** charge food service for indirect costs, school district personnel that are included in the district's indirect cost rate have been defined for the purposes of this study as "uncharged indirect costs" rather than unreported labor costs.

Exhibit 14
School-Based Personnel Are a Much Smaller Proportion of Unreported Labor Costs in Small SFAs

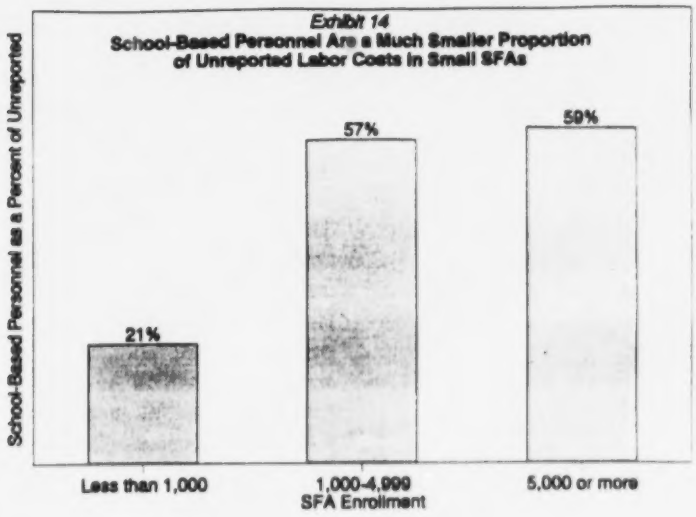
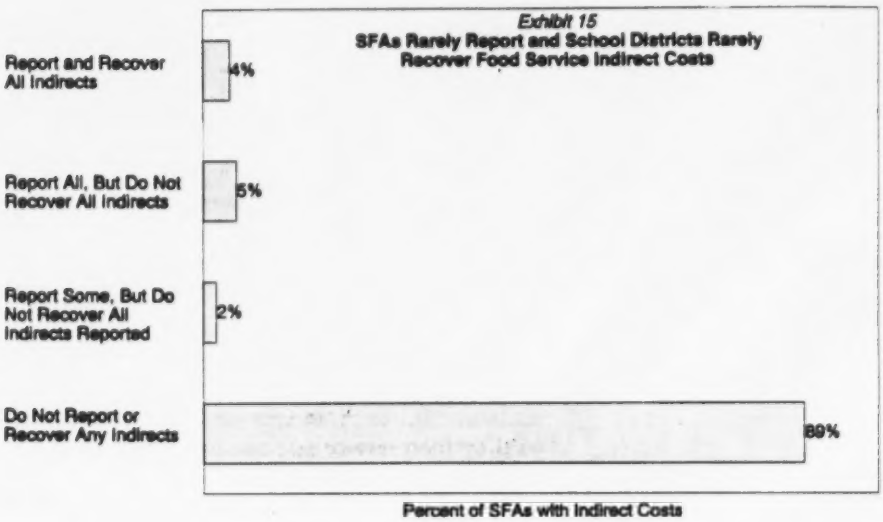


Exhibit 15
SFAs Rarely Report and School Districts Rarely Recover Food Service Indirect Costs


Report and Recover All Indirects
4%
Report All, But Do Not Recover All Indirects
5%
Report Some, But Do Not Recover All Indirects Reported
2%
Do Not Report or Recover Any Indirects
89%
Percent of SFAs with Indirect Costs

Even in cases where the SFA reports indirect costs for food service, the school district rarely recovers all of these costs. That is, even when indirect costs are calculated, the computed amount is not transferred from the food service fund to the school district's general fund. In about seven percent of districts with food service indirect costs the SFA reports at least some of these indirect costs, but the school district does not recover all the indirect costs attributable to food service. Only four percent of school districts recover all of the indirect costs attributable to food service.

Most often, school districts do not recover all of the food service indirect costs because the district chose to bear the cost as a way of subsidizing the SFA (53%) or because the SFA had insufficient funds (25%).

FULL COST OF PRODUCING REIMBURSABLE MEALS

Full Cost per Reimbursable Lunch

Full costs per reimbursable lunch in SY 1992-93 ranged from $1.14 to over $3.00. In one-third of all SFAs, the full cost per reimbursable lunch was at least $2.10. The median full cost of a reimbursable lunch was $1.88 and the mean full cost was $2.14. This estimated mean full cost reflects the influence of small SFAs with very small, high cost lunch programs. The very small, high cost SFAs exert less influence on the median than the mean. Therefore, the median full cost per reimbursable lunch ($1.88) is probably a better indicator of the full cost of producing reimbursable lunches in the average SFA.

The total Federal subsidy for free lunches in SY 1992-93 ($1.84) was very close to the median full cost of producing a lunch ($1.88). However, the full cost of producing a reimbursable lunch was ***less*** than the total subsidy for a free lunch in 39 percent of SFAs. Similarly, 46 percent of all reimbursable lunches served in SY 1992-93 were produced at a full cost that was less than the total subsidy for a free lunch.

Full Cost per Reimbursable Breakfast

In SY 1992-93 full costs per reimbursable breakfast ranged from $0.62 to $3.60, with a median cost of $1.38 and a mean cost of $1.67. When the basis of analysis is the SBP meal, the median full cost per reimbursable breakfast was $1.20 and the mean was $1.28. This reflects the effect of schools serving large numbers of reimbursable breakfasts which tend to have lower unit costs.

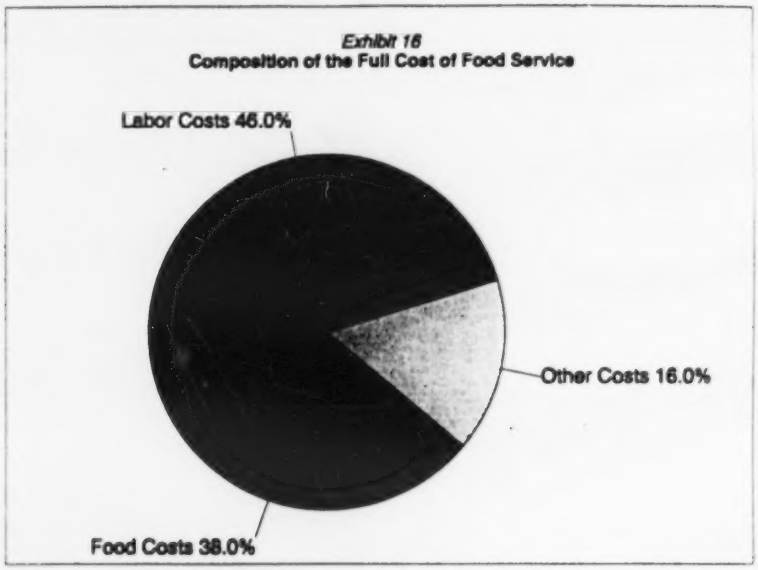
In nine out of ten SFAs (93%), the full cost exceeded the regular reimbursement rate for free breakfasts, and in four out of five SFAs (82%), the full cost exceeded the higher severe need rate. Even when the basis of analysis is the SBP meal, 89 percent of all breakfasts served in SY 1992-93 were produced at a full cost that exceeded the regular reimbursement rate for a free breakfast (61 percent were produced at a full cost that exceeded the higher severe need rate). This contrasts sharply with lunch costs reported above.

COMPOSITION OF FULL COSTS

The full cost of SFA operations includes costs that are charged to the SFA budget and costs that are not currently charged to the SFA budget. While these latter costs could potentially be recovered, they are currently not being recovered.

The composition of full costs differed somewhat from the composition of reported costs. As one would expect, food and labor costs accounted for the vast majority (84%) of the full cost of food service operations for the average SFA (Exhibit 16). However, food costs (including the assigned value of

Exhibit 16
Composition of the Full Cost of Food Service



donated commodities) accounted for 38 percent of full costs, compared to 48 percent of reported costs. This reflects the fact that all food costs are included in reported costs, but some labor and other costs are not included in reported costs. All other costs, including supplies, contract services, equipment, depreciation, and indirect charges by the school district, represented 16 percent of the average SFA's full costs.

Components of the Full Cost of Reimbursable Meals

Reimbursable Lunches. For the average SFA, food costs per reimbursable lunch were $0.79 in SY 1992-93, with mean labor costs of $1.00, and other costs averaging $0.35. There was considerably more variation among SFAs in labor costs than food costs. The greater variability in labor costs reflects the variation in the proportion of labor costs that are unreported. While all food costs are reported, on average 18 percent of labor costs are unreported.

Mean food costs per reimbursable lunch are lower using the meal as the unit of analysis ($0.72 vs. $0.79), perhaps reflecting the greater buying power of

the large SFAs. Mean labor costs per lunch are also somewhat lower using the meal as the unit of analysis ($0.90 vs. $1.00).

Reimbursable Breakfasts. For the average SFA, food costs per reimbursable breakfast were $0.56 in SY 1992-93, with mean labor costs of $0.84, and other costs averaging $0.27. As in the case of lunch costs, there is considerably more variation in breakfast labor costs than in breakfast food costs. As discussed above, the greater variability in labor costs in part reflects the variability in unreported labor costs.

While food costs per reimbursable breakfast are somewhat lower using the meal as the unit of analysis ($0.49 vs. $0.56), mean labor costs are significantly lower using the meal as the unit of analysis ($0.57 vs. $0.84). This reflects the economies of scale in breakfast production--schools that serve large numbers of reimbursable breakfasts tend to have much lower labor costs per meal than schools serving relatively few reimbursable breakfasts.

Administrative Costs

Because virtually all of the unreported labor is used to perform administrative and other non-production activities in support of food service, on a full-cost basis administrative labor accounts for a much higher percentage of labor costs than on a reported-cost basis. On a full-cost basis, administrative labor accounted for an average of 30 percent of total labor costs.

However, administrative labor accounts for a relatively small proportion of total full costs. For the average SFA, total administrative labor cost accounted for only 14 percent of total full costs in SY 1992-93.